

SERIES 56

0.5" Diameter, 200mA, .355" Behind Panel

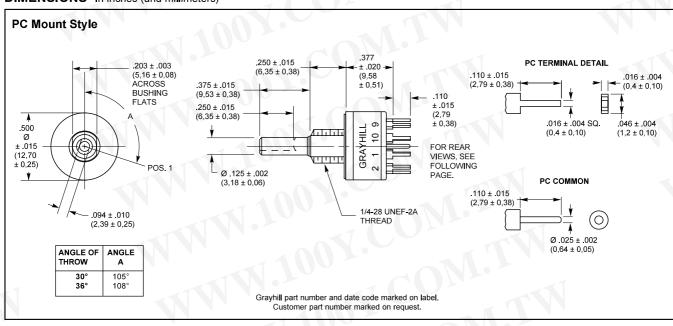
FEATURES

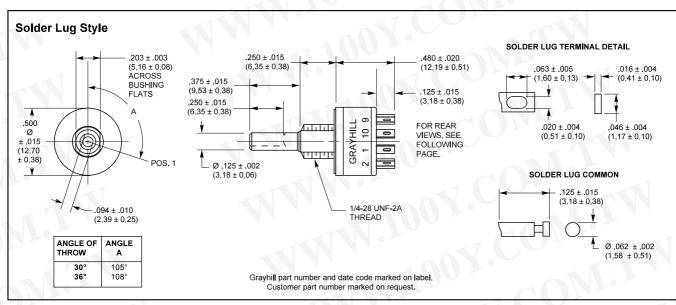
- Requires Minimum Distance Behind the Panel
- Adjustable Stop Types Provide Prototypes Immediately
- Industrial Quality, Economically Priced



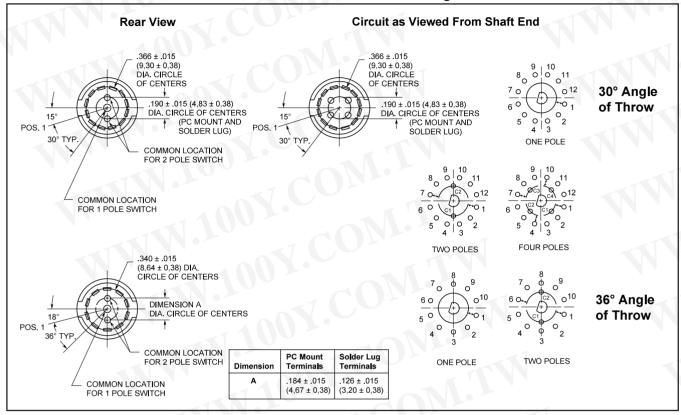


DIMENSIONS In inches (and millimeters)





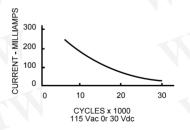
CIRCUIT DIAGRAMS AND REAR VIEWS: PC Mountable AND Solder Lug Terminals



SPECIFICATIONS

Electrical Ratings

Chart shown for non-shorting (break before make) contacts, resistive load.



One cycle is 360° rotation clockwise and 360° return. The data for the curve was measured at sea level, 25°C and 68% relative humidity with the life limiting criteria which follows.

Contact Resistance: 100 milliohms maximum, (15 milliohms initially).

Insulation Resistance: 10,000 Mohms minimum between mutually insulated parts (50,000 Mohms initially).

Voltage Breakdown: 600 Vac minimum between mutually insulated parts at standard atmospheric pressure.

Life Expectancy: As determined from the loadlife curve for the current to be switched. Contact GRAYHILL for more information if any of the following is true: the life limiting criteria are more critical than those listed; longer operation is required; a larger make and break current is required; the operating environment includes elevated temperatures or reduced pressures.

Contact Carry Rating: Switch will carry 6 amperes continuously with a maximum contact temperature rise of 20°C.

Additional Characteristics

Contact Type and Forces: Shorting or non-shorting wiping contacts with over 25 grams of contact force.

Shaft Flat Orientation: Flat opposite contacting position of pole number one (see circuit diagrams). Terminals: Switches have the full circle of terminals, regardless of number of active positions. Stop Strength: 7.5 lb-in. minimum

Rotational Torque: 3.5 to 9 oz-in. (21-53 mN-m), depending on the number of poles. **Bushing Mounting:** Required for switches with stops, and recommended for switches without stops.

Meets MIL-S-3786 for:

High and medium shock; Vibration (10 to 2,000 Hz); Thermal shock (-65° to 85° C); Salt spray; Explosion; Stop strength (7.5 in-lbs. minimum (.85 N-m); Terminal strength; Sealed styles withstand water pressure of 15 PSI minimum (103 KPa) without leakage.

Materials and Finishes

Housing: Zinc die cast, zinc-plated with chromate treatment.

Mounting Nut: Brass, zinc-plated with chromate treatment.

Lockwasher: Spring steel, zinc-plated with chromate treatment.

Panel Seal: Silicone rubber

Shaft and Stop Arm: Zinc die cast, zinc-plated with chromate treatment.

Retaining Ring: 302 Stainless steel, passivated

Shaft Seal: Silicone rubber

Stop Pins: 303 Stainless steel, passivated Detent Rotor: Molded thermoplastic Detent Spring: Tinned music wire Detent Balls: Steel, nickel-plated

Contact Spring: Stainless steel, passivated Rotor Contact: Brass, silver over nickel plate Common Ring: Brass, gold over silver over

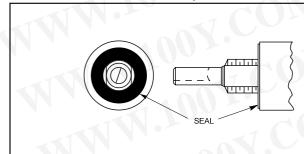
nickel plate

Terminals: Brass, gold over silver over nickel plate

Switch Base: Molded thermoset plastic
Mounting Hardware: One mounting nut .089"
thick by .375" across flats and one internal tooth
lockwasher are supplied with the switch.



SHAFT AND PANEL SEAL: Style S

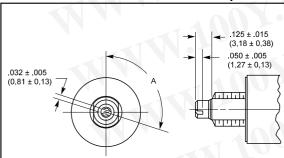


Panel is sealed by an O-ring at the base of bushing. Shaft is sealed by an O-ring inside the bushing. After the switch is mounted, seals do not alter the dimensions of the unsealed style.



Shaft and Panel Seal

SCREWDRIVER SLOTTED SHAFT: Option



Series 56 rotary switches are available with a screwdriver slotted shaft with dimensions as shown. Available in the styles, angles of throw and pole/ positions combinations shown in the choice and limitations chart.

Screwdriver Slotted Shaft

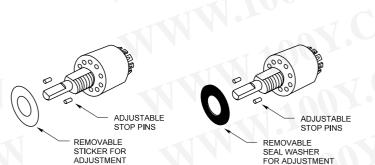
ADJUSTABLE STOP SWITCHES

Two stop pins and an adhesive backed sticker or seal washer are provided. Sticker is temporarily removed to locate stop pins as

OF STOPS

desired to limit the shaft rotation. All dimensions are identical to the fixed stop switch counterpart.

OF STOPS



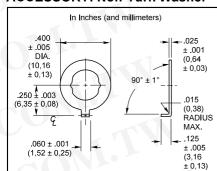
SUGGESTED ADJUSTABLE STOP SUBSTITUTION GUIDE

Adjustable Stop Style Equivalent	Fixed Stop Style	Adjustable Stop Style Equivalent		
56D	56B	56BD		
56SD	56BS	56BSD		
56DP	56BP	56BDP		
56SDP	56BSP	56BSDP		
	56D 56SD 56DP	Style Equivalent Style 56D 56B 56SD 56BS 56DP 56BP		

Adjustable

Stop

ACCESSORY: Non-Turn Washer



Part No. 50J1066

Cut round hole for the bushing and for the non-turn tab. Washer fits the double D bushing flats. Washer is sold only when accompanied by an order for a like number of switches. Washer is 302 stainless steel.

CHOICES AND LIMITATIONS: Series 56

A = Standard, 1/8" Shaft

P = PC Mount Terminals

B = Screwdriver Slot Shaft

S = Shaft/Panel Seal (S/P Seal)

D = Adjustable Stop (Adj. Stop)

	FEATURES				Screwdriver	Angle	Number	Number Of	Shorting Or
Style Designation	Solder Lug Terminals	PC Mount Terminals	Shaft/Panel Seal	Adjustable Stops¹	Slotted Shaft Equivalent		Of Poles	Positions Per Pole	Non-Shorting Contacts
Α	Х		<i>y</i>		В				
S	X	•	X		BS	- 1	1	02 thru 12	N or S
Р		x			BP	30°	2	02 thru 06	N or S
SP	,	X	X		BSP		4	02 or 03	N or S
D	X			Х	BD				
SD	X		X	Χ	BSD		3° 1 2	02 thru 10 02 thru 05	N or S N or S
DP		Х		Х	BDP	36°			
SDP		X	×	X	BSDP				

¹ Adjustable stop versions allow selection of 2 positions to the maximum number of positions per pole.

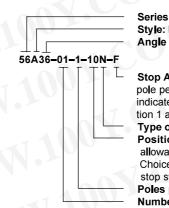
ACCESSORIES

Control knobs available, see page E-39.

STANDARD OPTIONS

Available from your local Grayhill Distributor For prices and discounts, contact a local Sales Office, an authorized local Distributor, or Grayhill. Not available thru Distributors when Intermixing of shorting and non-shorting contacts. Contact Grayhill.

ORDERING INFORMATION



Style: Letters from Choices Chart Angle of Throw: 30 or 36°

Stop Arrangement: The suffix C or F must be added to a one pole per deck switch with the maximum number of positions to indicate continuous rotation (C) or fixed stops (F) between position 1 and the last position. Leave blank if not applicable.

Type of Contacts: N = Non-shorting, S = Shorting

Positions Per Pole: 02 as a minimum to the maximum allowable for the angle of throw and number of poles per the Choices Chart. Use the letters AJ in this location if adjustable stop switch is to be ordered.

Poles per Deck: Limited by angle of throw. See chart

Number of Decks: 01 only

勝 特 力 材 料 886-3-5753170 胜特力电子(上海) 86-21-34970699 胜特力电子(深圳) 86-755-83298787 Http://www.100y.com.tw